

Notice of Allowability

Application No.

09/559,835

Examiner

Hiep T. Nguyen

Applicant(s)

BARTH, ET AL.

Art Unit

2187

– The **MAILING DATE** of this communication appears on the cover sheet with the correspondence address–

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 9/22/05.
2. ☒ The allowed claim(s) is/are 1-41.
3. ☒ The drawings filed on 26 April 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Hiep T Nguyen
Primary Examiner
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REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The claimed invention is directed to a packet format transmitted across a high-speed bus system and the processing of the same by devices coupled to the bus. The packet format is provided to enable the receiving device to decrease the latency when the packet is received. By placing the low order address bits in a first word or first two words of the packet, those memory accesses performed in page mode can be processed at least two cycles earlier comparing to the prior art packet format [see figures 1 and 3, col. 3, fifth paragraph]. As the low order bits of the memory address are placed in the first two words of the packet, little room is left at the beginning of the packet for op code bits, op[3:0], which identify the type of memory operation to be performed. Due to the fact that there is little room left in each word, the op code bits are divided and packed in more than one word of the request packet [see again figure 3]. ***None of the prior art of record teaches or fairly suggests that specific packet format transmission and/or receiving, which allowing the low order address bits to be packed into the first word or the first two words of the packet and/or that the op code bits are divided and packed into two or more words of the packet, or the divided op code bits are issued to or received by a memory device at different time. [see again figures 3-4].***

Accordingly, the allowable features in each of the claims are as follows:

Claim 1: ... transmitting a first word of a packet, comprising: ... transmitting low order memory address bits ... transmitting first op-code information ..., and transmitting a second word of the packet, comprising: ... transmitting second op code information ..., and transmitting higher order address bits ..., and transmitting third op code information

Claim 2 is allowed over the prior art of record at least for the same reason as set forth for claim 1 since claim 2 is depending on claim 1.

Claim 3: ... transmitting a first word of a packet, comprising: ...transmitting a first portion of a low order memory address bits ..., transmitting a first portion of op code information ..., and transmitting a second word of the packet, comprising: ... transmitting a second portion of op code information ...,

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transmitting a third portion of op code information ..., and transmitting a second portion of the lower order address bits

Claim 4: *... packet comprising: a first word comprising: ... a first portion of lower order address bits ..., and a first portion of op code information; and a second word comprising: a second and third portion of op code information, ... a second portion of lower order address bits*

Claims 5-11 are allowed over the prior art of record at least for the same reason as set forth for claim 4 since claims 5-11 are depending on claim 4.

Claim 12: *... receiving first operation code information ... receiving second operation code information ..., and accessing a first memory cell ... based at least in part on the first and second operation code information.*

Claims 13-25 are allowed over the prior art of record at least for the same reason as set forth for claim 12 since claims 13-25 are depending on claim 12.

Claim 26: *... issuing first operation code information ... issuing second operation code information ..., wherein the data stored in a memory cell ... is accessed for a memory operation based at least in part on the first and second operation code information.*

Claims 27-41 are allowed over the prior art of record at least for the same reason as set forth for claim 26 since claims 27-41 are depending on claim 26.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hiep T Nguyen whose telephone number is (571) 272-4197. The examiner can normally be reached on Monday-Friday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Hiep T. Nguyen
Primary Examiner
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HTN